REMARKS

Favorable reconsideration of the above-identified application is respectfully requested in view of the following remarks.

Examiner Milia and his supervisor, Examiner Pokrzywa, are thanked for the courtesies extended during a person interview with Applicant's representative, Kevin McGoff, on August 24, 2005.

Claims 1-5 and 7-33 are pending in this application, with Claims 1, 13, 14, 17-19, 24 and 29 being independent.

The Official Action rejects Claims 1-4, 10, 12-14, 17-19, 24 and 29 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,293,469, hereinafter *Outa,* in view of U.S. Patent No. 5,629,752, hereinafter *Kinjo,* and further in view of Japanese Patent Document No. 06-195421, hereinafter *Arakawa.* Claims 5, 21, 26 and 31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Outa, Kinjo* and *Arakawa* and further in view of U.S. Patent No. 6,469,805, hereinafter *Behlok.* Claims 9, 16, 23, 28 and 33 are rejected under 35 U.S.C. § 103(a) as being upatentable over *Outa* and *Kinjo* and further in view of U.S. Patent No. 5,845,304, hereinafter *Iijima.*

Claims 1, 13, 14, 17-19, 24 and 29 define combinations including features that are generally directed toward detection of first information concerning a color within an extracted enclosed area, and detection of second information concerning a color of line graphics.

Outa discloses an apparatus that provides a way of receiving graphic symbols whose sizes are different and whose positions are irregularly arranged, such as handwritten flow charts. The apparatus automatically adjusts the symbols to be

balanced so that the positions of the centers of the graphic symbols are aligned. *Outa's* device is disclosed as being a digital copying machine having an image reader 1. The user first draws graphic symbols on a paper, e.g., a flow chart, and then the image reader 1 reads the document, converts the image into <u>bi-level</u> image data (column 3, lines 59-61) and saves that bi-level image data in a buffer. A vector transformer 3 then extracts the graphic image from the buffer memory and transforms the extracted image into vector data. As *Outa* relates to flow charts, it is disclosed that the shape of the vector data is recognized as either being a line element or a closed loop graphic element. That is, the shape of the graphic element is recognized and the representative operation is understood (column 4, lines 10-36 and Fig. 7A-7K). Basically, *Outa* discloses that a person draws lines on a paper, that the paper is scanned, that vectors are established based on the <u>detected lines</u>, and that the vectors are then manipulated.

Kinjo discloses a method of determining an exposure amount for a person's face using optical recognition of facial features. The image data of the shape of a person's head is generated by binarization or another technique. Based on areas of color, the contour of the person's head and features is traced with vectors and the facial region is extracted by a facial region extracting unit 40 that estimates a portion corresponding to the face of a human figure with regard to three colors R, G, B. Basically, *Kinjo* discloses detecting areas of color, detecting edges of color areas, and establishing vectors based on the <u>edges of the color areas</u>.

Arakawa deals with raster image data that is created by a graphics computer or that is created by a scanner. According to *Arakawa*, raster image data is difficult to expand or scale (paragraph [0011]). However, if raster data is changed to vector

data, it becomes easier to change the position, amplify, cutback, rotate, and otherwise manipulate the data. Therefore, *Arakawa* discloses scanning a textile pattern having areas of color and creating border-line data based on the edge of the color patterns (paragraph [0010], lines 7-9 and Fig. 5.) The border-line data is changed into vector data, so that the pattern can be migrated, amplified, etc. (paragraph [0012], lines 2-3). The border-line data is merely the border (i.e., edge) of a color area (Fig. 5) and does not include color information. Basically, *Arakawa* discloses detecting areas of color and establishing vectors based on the <u>edges of color areas</u>.

In summation, *Outa* detects lines and establishes vectors based on detected lines, while *Kinjo* and *Arakawa* detect color areas and establish vectors based on the areas of color.

It is recognized in the Official Action that *Outa* at least fails to disclose detection of first information concerning a color within the extracted enclosed area, and detection of second information concerning a color of the line graphics. To satisfy that deficiency, the Official Action relies upon *Kinjo* and *Arakawa*, and proposes that it would have been obvious to a skilled person in the art to modify *Outa* in view of *Kinjo* and *Arakawa* to arrive at the claimed combinations of features. The Official Action states that it would have been obvious to modify *Outa* to include the claimed subject matter relating to color detection because it would be beneficial to "provide the ability to ascertain the color inside of a graphic object as well as the color of the lines that outline the object to allow the color inside and the color of the border-line graphics to be detected for accurate reproduction." However, that proposition is unreasonable for at least the following reasons.

VA 777058.1

First, there would have been no motivation to modify *Outa* to include detection

of information concerning color of an extracted enclosed area because the

motivation for *Kinjo* and *Arakawa* to detect areas of color (to establish vectors) are

not applicable to *Outa*. That is, both *Kinjo* and *Arakawa* disclose detecting color

information of an area in order to establish vectors, whereas *Outa* establishes

vectors based on detected lines that are drawn on paper by a user. Therefore, there

would have been no motivation for a skilled person, in view of *Kinjo* or *Arakawa*, to

modify *Outa* to replace detection of lines to establish vectors, with detection of

information concerning color within an extracted area to establish vectors. In this

regard, *Outa* works quite differently than *Arakawa* or *Kinjo*.

Second, it would not have been obvious to modify *Outa* to include detection of

information concerning color within an extracted area, or information concerning a

color of line graphics. As noted above, the purpose of *Outa* is to allow a person to

draw a flow chart by hand (see Abstract) and to detect the lines of the flow chart and

manipulate them into a final form. That is, the intended purpose of *Outa* is to scan a

document having graphic data and to save the document image as bi-level image

data (column 3, line 59-61). The bi-level image data serves to identify the location

and shape of the graphic data on the document while eliminating any complications

relating to colors of the background or the graphic data. Therefore, assuming

arguendo that *Kinjo* and *Arakawa* disclose detection of information concerning color

of an area, replacement of *Outa's* bi-level image detection with a device for detection

of color information would be a drastic deviation from *Outa's* intended purpose.

When evaluating the obviousness of a proposed modification, "[i]f the proposed

modification or combination of the prior art would change the principal of operation of

the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." MPEP § 2143.02. Clearly, in the case at hand, modifying *Outa* to embody detection of color raster data, as proposed in the Official Action, would entirely change the intended operation and cannot be obvious.

Third, the Official Action relies on *Arakawa* to disclose the claimed subject matter relating to detection of information concerning color of a line graphic. However, *Arakawa* does not disclose detection of information concerning color of line graphics, and in fact does not disclose detection of a line graphic. Rather, *Arakawa* discloses detecting color areas, establishing border-line data based on the edges of the color areas, and establishing vectors according to the generated border-line data. Further, there is no disclosure in *Arakawa* that the border-line data has any color attributes. As disclosed in paragraph [0010] (cited in the Official Action), "[a] border-line extract means to extract the border-line data of the pattern of each color from the raster data..." That is, the border-line data relates to the outline of a color area and does not include color information. As further described in paragraph [0017] (cited in Official Action), "the border-line extraction section 24 is started and trace processing of the border-line data of an image is started (S1). Trace processing of this border line is performed..." Again, there is no disclosure that the border-line data includes color information. Finally, as described in paragraph [0025] (The Effect of the Invention), it is stated that "extract the border-line data of each color from the raster data describing the pattern of textiles, and it is changed to vector data." That is, the extracted border-line data only relates to the pattern of the textiles, i.e., the pattern of the color areas, and does not include color

information. It is clear that the border-line data does not include color information. Therefore, for at least that reason, *Arakawa* does not disclose detection of color concerning a color of a line graphic as defined by the claims.

For the reasons stated above, Claims 1, 13, 14, 17-19, 24 and 29 are allowable.

Claims 2-4, 10 and 12 are allowable at least by virtue of their dependence upon allowable independent claims, and because they define features that additionally define over the cited documents.

Claims 5, 21, 26 and 31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Outa* in view of *Kinjo* and *Arakawa*, and further in view of *Behlok*. Claims 5, 21, 26 and 31 depend from Claims 1, 20, 24 and 29 and as *Behlok* does not satisfy the deficiencies of the rejections of those claims, Claims 5, 21, 26 and 31 are allowable for at least the same reasons.

Claims 9, 16, 23, 28 and 33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Outa* in view of *Kinjo*, and further in view of *Iijima*. Claims 9, 16, 23, 28 and 33 depend from allowable independent Claims 1, 14, 19, 24 and 29, respectively. As *Iijima* does not satisfy the deficiencies of the rejections of those claims noted above, Claims 9, 16, 23, 28 and 33 are allowable for at least the same reasons.

For at least the reasons stated above, it is requested that all the rejections be withdrawn and that this application be allowed in a timely manner.

VA 777058.1

Should any questions arise in connection with this application, or should the

Examiner feel that a teleconference with the undersigned would be helpful in

resolving any remaining issues pertaining to this application, the undersigned

respectfully request that he be contacted at the number indicated

Respectfully submitted,

BUCHANAN INGERSOLL PC
(including attorneys from BURNS, DOANE, SWECKER & MATHIS)

Date: __September 13, 2005__   By: _Kevin Brayton McGoff_
                                              Kevin Brayton McGoff
                                              Registration No. 53,297

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

VA 777058.1